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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/688,423

10/16/2003

Stephen Loomis

AOL00111

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22862 7590 05/19/2009

GLENN PATENT GROUP  
3475 EDISON WAY, SUITE L  
MENLO PARK, CA 94025

EXAMINER

FLANDERS, ANDREW C

ART UNIT

PAPER NUMBER

2614

MAIL DATE

DELIVERY MODE

05/19/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/688,423	<b>Applicant(s)</b> LOOMIS, STEPHEN	
	<b>Examiner</b> ANDREW C. FLANDERS	<b>Art Unit</b> 2614	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 March 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28,31 and 32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28,31 and 32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/2/09</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

The information disclosure statement filed 02 March 2009 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because references 1, 4, 5, 6, 8 and 9 fail to list a publication date. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

### ***Response to Arguments***

Applicant's arguments filed 02 March 2009 have been fully considered but they are not persuasive

Applicant alleges:

There is no teaching or suggestion in the combination of deleting all pre- cached songs preceding a target song that the user skips to at the same time that the target song starts to play. At col. 12, lines 49-52, Berman describes "If a user decided not to listen to the current song and skips it entirely on playback, it remains in the playback unit memory so the user can return to the skipped song and listen to it."

Thus, even though songs preceding a target song may eventually be overwritten, as described at col. 12, lines 25-30, because songs are

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retained in the playback memory so that the user can return to the skipped song, there is no teaching or suggestion in Berman that all songs preceding the target song are deleted at the same time that the target song starts to play.

The Office relies on Berman: co1.12, lines 55-57, 55-63 and various teachings regarding buffer size from col. 11. However, the aggregation of these teachings is insufficient to show that the combination teaches the claim element in question without the highly speculative, completely unsupported contention by the Office that it would be obvious to alter buffer size, and that if the buffer size had been adjusted in such a way that Berman's device had only two buffers, then the Claim element would be taught or suggested by the combination. The problem with this rationale is that the combination does not teach or suggest that the buffer size be adjusted. Berman teaches only that the buffers are approximately 2MB in size. The Office points to no other teaching from the combination that buffer size be adjusted in such a way that the device would end up having only two buffers.

Examiner respectfully disagrees. Berman can keep a song in the playback unit memory if the space is available, but it isn't necessary, nor required. As stated in the rejection, the number and size of the buffers is flexible and can be adjusted as desired by the system designer. See column. 11, specifically Berman discusses explicitly that the number of buffers available can vary; col. 11 line 36. Berman also at least suggests that the size of the buffer is configurable. Berman discloses that each buffer will hold approximately 10 seconds of audio data in the preferred embodiment. The use of the terms approximately and preferred at least indicate that these devices are adjustable. Nevertheless, even if Applicant is correct in that Berman doesn't disclose adjustable buffers, (to which the Examiner does not necessarily agree) Examiner still maintains that it is notoriously well known in the art that the size and number of buffers is adjustable in buffering configurations of audio playback.

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Applicant further alleges:

Applicant is uncertain under what authority the Office offers the contention. Is it a finding based on Official Notice? Is it a finding that it is commonly known in the art to adjust buffer size in order to compensate for changes in play length, connection speed and the like? Without proper documentary support for its contention, relying on the contention to demonstrate prima facie obviousness is improper. Applicant respectfully requests that the Office provide documentary support for its contention that it would be obvious to adjust buffer size in such a way that the device described by the combination would have only two buffers. Barring such a showing, the present rejection is fatally flawed, and therefore ineffective to demonstrate that Claim 1 is unpatentable over the combination.

Examiner respectfully disagrees. Examiner is not relying on Official notice, but rather an obvious modification of the Berman reference based upon what is disclosed in column 11. As stated above column 11 discloses a number of features that are adjustable, or at least preferred. As a result, Examiner maintains it is possible that these features can be changed, namely the size and number of buffers.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 1 – 28, 31 and 32** are rejected under 35 U.S.C. 103(a) as being unpatentable over Berman (U.S. Patent 6,502,194) in view of Zainoulline (U.S. Patent Application Publication 2001/0030660) and in further view of Kumagi (U.S. Patent Application Publication 2002/0059237).

Regarding **Claim 1**,

Berman discloses:

An apparatus for smoothly playing a pre-determined sequence of songs transmitted from a server over the internet (Fig. 1 element 100) comprising a processor (Fig. 1 element 118), a first memory that stores at least one program used by said processor to control the playing of the sequence of songs (col. 4 lines 54 – 57),

wherein said at least one program causes said processor at least to:

as soon as a song starts to play, start to download, consecutively, a first small portion of a number of songs which are, in the predetermined sequence, subsequent to the song playing in an alternating fashion, said downloaded small portions being pre-cached in a pre-cache buffer which is an area in said memory (i.e. as the first song (Song 1) is being played, the playback unit continues to operate and, in background operations, continues to download the Song 1 data into the first buffer, and also

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downloads data for the other selected songs into the other buffers in an alternating fashion. Each song will be placed into a different sequential buffer; col. 12 lines 10 – 16; the buffers in the same memory and thus common to one another via the same memory;);

as soon as the user skips to a target song whose first small portion has been pre-cached, start to play the first small portion of said target song (i.e. this ensures that some portion of each selected song will be downloaded and available as soon as possible, thereby permitting the user to skip to one of the other selected songs after playback has begun; col. 12 lines 16 – 19);

at the same time as said target song starts to play, deleting all pre-cached songs preceding said target song in said pre-determined sequence (Berman discloses that overwriting in a buffer will not begin until listening to a song has begun; col. 12 lines 55-57; Berman also discloses that if the user adds more songs than can be stored, a newer song on the list will begin to overwrite the oldest song in memory; lines 55 – 63; additionally, Berman discusses in col. 11 that the size of the buffers is approximately 2MB, and that the number accommodated is dependant on memory size. It is submitted that it is obvious to alter the size of these buffers as well, based upon the memory available in the system. This is desirable for numerous reasons such as desired play length or connection speed and the like to avoid breaks, as discussed near the bottom of col. 11. So, if the buffer space is only large enough to support two songs, when a user plays the second song and adds another, as soon as the second song begins to play, the first song will be over written); and

and at the same time start to download the rest of said target song so that as soon as the playing of the first small portion of said target song ends, start to play the rest of said target song which is being downloaded from the server over the internet (i.e. this ensures that some portion of each selected song will be downloaded and available as soon as possible, thereby permitting the user to skip to one of the other selected songs after playback has begun; col. 12 lines 16 – 19)

Berman does not explicitly disclose; or the buffers are in an area in said second memory; or wherein the playtime of said downloaded first small portion is limited to comply with royalty requirements.

Zainoulline discloses a preview device having a CPU, RAM memory, and staging memory (page 3 paragraph 0031)

Applying this staging memory to store the music data in Berman instead of Berman's only memory reads upon the limitation of a second memory which is available to said at least one program for operations and the buffers are in an area in said second memory.

One of ordinary skill in the art at the time of the invention would have been motivated to use Zainoulline's preview device with Berman's Memory Buffering Control playback method in order to create a more pleasing online shopping experience. Rather than a user having to wait for each individual song to buffer as they skip between preview clips, the combination would allow a user to smoothly switch between media clips thereby saving the user time and avoiding annoying pauses between playback (Zainoulline paragraph 26).



The combination fails to explicitly disclose wherein playtime of said downloaded first small portion is limited to comply with royalty requirements.

Kumagai discloses:

In other words, for example, if a user purchases and downloads certain contents data of only one tune, then a trade regarding provision of the contents data through downloading is performed. It is to be noted that, in the form of "purchase per download", the number of playback times, the playback period or the like is sometimes restricted depending upon the intention of the proprietor of the copyright or the like (paragraph 4).

Applying this teaching to the combination reads upon the limitation of wherein playtime of said downloaded first small portion is limited to comply with royalty requirements.

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply these teachings to the combination. As is notoriously well known in the art, copyright infringement in digital music is a significant problem. Avoiding this would be desirable; i.e. it is desirable it restrict playback depending upon the intention of the proprietor of the copyright or the like; paragraph 4 of Kumagai.

Regarding **Claims 6, 7, 16 and 17**, in addition to the elements stated above regarding claim 1, the combination further discloses:

wherein said number of songs is maintained at a single positive integer (i.e. songs 1, 2 and 3 in the example of Berman).

as soon as the user skips from a song in the playing to a target song, checking whether a file for said target song exists in said buffer, wherein if the check result is yes, continuing on step (d); (d) playing the first small portion of said target song (i.e. Berman further discloses checking to see if the track is in the buffer and if so beginning to stream track data from memory; Fig. 5 elements 506 and 512).

As stated above regarding claim 1, Berman discloses data in a given buffer is overwritten as it is processed and played. Thus, after the last segment of memory in a buffer for a song has been filled with a song data packet and that buffer is processed for listening, the next song data packet will be written to the first segment in that buffer (col. 12 lines 25 – 30). Therefore, as the system starts downloading the rest of the said target song, it is inherent that the data that has been in the buffer prior to the target song is overwritten (i.e. deleted) as the newer data is being processed and played. This reads upon the limitation of deleting any pre-cached song prior to said target song in said pre-determined sequence. Elements (f) and (g) are met above regarding claim 1.

Regarding **Claims 2, 12 and 22**, in addition to the elements above regarding claim 1, the combination further discloses

wherein said first small portion is approximately the data required for playing the first ten seconds (in Berman in the preferred embodiment each data packet contains approximately ten seconds of compressed digital audio information; col. 11 lines 50 – 52).

Regarding **Claim 3, 13, and 23**, in addition to the elements above regarding claim 1, the combination further discloses:

Berman discloses three buffers in a playback memory in Figure 11. The playback unit memory may be segregated into a number of sequential buffers, with each buffer preferably containing one song (col. 11 lines 30 – 32) and the number of buffers is determined by the 2MB buffer size and the amount of memory that the playback unit microprocessor can access, so the number of buffers available will be variable (col. 11 lines 34 –38). Since microprocessor accessible memories of, for example, 256 MB, are well known at the time of the invention, Berman's disclosure comprehends any number of buffers up to at least 128.

Regarding **Claims 4, 14, and 24**, in addition to the elements stated above regarding claim 1, the combination further discloses:

Berman further discloses that the buffers correspond to the following musical selections (col. 11 lines 63 – 65) and that the buffers are sequential buffers (col. 11 line 31). Berman discloses that the buffers correspond to the following musical selections as well as hold the data of the following songs to be played in sequential order. Therefore it is inherent that the said number of songs is all songs subsequent to the song in playing.

Regarding **Claims 5, 15, and 25**, in addition to the elements stated above regarding claim 1, the combination further discloses:

wherein said buffer follows a first-in first-out algorithm and allows writing while reading (i.e. Berman further discloses The loop buffering operation progresses from left to right in Fig 12. Loop buffering is used to limit the size needed for each buffer. In particular, a buffer is not expected to have sufficient capacity to contain the entire data needed for one song. Rather data in a given buffer is overwritten as it is processed and played. Thus, after the last segment of memory in a buffer for a song has been filled with a song data packet and that buffer is processed for listening, the next song data packet will be written to the first segment in that buffer; col. 12 lines 22 – 30).

Regarding **Claims 8 and 18**, in addition to the elements stated above regarding claims 7 and 17, the combination further discloses:

as soon as step (d) starts, continuing on step (a), wherein if one or more songs subsequent to said target song are already pre-cached, skipping said one or more songs and downloading the subsequent ones, consecutively, to make up said number.

Berman discloses that portions of each selected song will be downloaded as the first one begins to play (col. 11 lines 56 and 57), the number of buffers may be variable (col. 11 lines 37 and 38), this ensures that some portion of each selected song will be downloaded and available as soon as possible, thereby permitting the user to skip to one of the other selected songs after playback has begun (col.12 lines 16 – 19), and as the first song (Song 1) is being played, the playback unit continues to operate and, in background operations, continues to download the Song 1 data into the first buffer, and also downloads data for the other selected songs into the other buffers in an alternating

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fashion. Each song will be placed into a different sequential buffer. (col.12 lines 10 – 16). It is inherent that as soon as the user skips ahead to another song, the subsequent songs will be downloaded into the buffer sequentially in order to fill the number of buffers; thus the above paragraph shows why the combination reads upon the claimed limitations.

Regarding **Claims 9 and 19**, in addition to the elements stated above regarding claims 8 and 18, the combination further discloses:

if no skip command is given by the user while said target song is playing, as soon as the playing of said target song ends, playing the next song immediately subsequent to said target song

Berman further discloses that if a user wants to hear Song1, Song2, and Song 3, the playback unit downloads a number of packets for Song1 into the first available buffer, Once a sizeable amount of compressed audio information is stored for that song, the playback unit begins to process the information and play the song (col.11 lines 66 and 67, col. 12 lines 1-4). It is inherent that if the user selects these three songs, starts playing Song1, and doesn't skip ahead that Song 2 will follow after Song1 has completed playing based on the functionality of the buffer; thus the above paragraph shows why the combination reads upon the claimed limitations.

Element (j) is clearly comprehended above regarding claim 6 and thus claims 9 and 19 are rejected.

Regarding **Claims 10 and 20**, in addition to the elements stated above regarding claims 7 and 17, the combination further discloses:

. sending request to stop transmitting of said song in playing and start transmitting said target song and playing said target song while being downloaded as soon as said buffer allows so

Berman discloses that As the first song (Song 1 is being played, the playback unit continues to operate and, in background operation, continues to download the Song 1 data into the first buffer, and also downloads data for the other selected songs in to the other buffers into an alternating fashion (col. 12 lines 10 – 14) and if a user wants to hear Song1, Song2, and Song 3, the playback unit downloads a number of packets for Song1 into the first available buffer, Once a sizeable amount of compressed audio information is stored for that song, the playback unit begins to process the information and play the song (col.11 lines 66 and 67, col. 12 lines 1-4). Therefore, if a user starts playing Song1 and instantly skips to Song2 there will be no information stored in the buffer for Song2 therefore it is inherent that the system will stop playing Song 1 and automatically download the information for Song2; thus the above paragraph shows why the combination reads upon the claimed limitations.

Elements (l), (m), and (o) are clearly comprehended above regarding claims 6 and 7 and thus claims 10 and 20 are rejected.

Regarding **Claims 11 and 21**, in addition to the elements stated above regarding claims 10 and 20, element (p) is clearly comprehended above regarding claim 9

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element (j), element (q) is clearly comprehended above regarding claim 9 element (i), element (r) is clearly comprehended above regarding claim 7 element (e), element (s) is clearly comprehended above regarding claim 8 element (h), and element (t) is clearly comprehended above regarding claim 7 element (g) and thus claims 11 and 21 are rejected.

Regarding **Claim 26**, in addition to the elements stated above regarding claim 1, the combination further discloses:

wherein said number of songs that are cached is specified by a user and wherein size of said buffer are specified (i.e .the user wants to hear songs 1, 2 and 3; col. 11 lines 65 – 67; additionally, the length of the buffer is set by the program in the memory. This setting does not differ in that described by Applicant in the specification; particularly page 7 as pointed out in Applicant's remarks. Berman's system requires the buffers to be set in memory and thus it must be done by the software program discloses; just as Applicant discloses).

Regarding **Claim 27**, in addition to the elements stated above regarding claim 1, the combination further discloses:

wherein said length of said first small portion and said number of songs are configurable in a function (i.e .the user wants to hear songs 1, 2 and 3; col. 11 lines 65 – 67; additionally, the length of the buffer is set by the program in the memory. This setting does not differ in that described by Applicant in the specification; particularly

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page 7 as pointed out in Applicant's remarks. Berman's system requires the buffers to be set in memory and thus it must be done by the software program discloses; just as Applicant discloses. Since the software is written for the system there must be some level of configurability).

Regarding **Claim 28**, in addition to the elements stated above regarding claim 1, the combination further discloses:

a function to close and remove all of said first small portion of each of said number of songs (i.e. the user has no permanent copy of the audio material; col. 6 lines 25 – 28; which at least suggests that the songs pre buffered will be removed).

Regarding **Claim 31**, in addition to the elements stated above regarding claims 1 and 6, the combination further discloses that the device may playback video media (Zainoulline abstract) as well as audio media thus meeting the limitations of claim 31 in addition to what is stated in claim 1.

Regarding **Claim 32**, in addition to the elements stated above regarding claim 31, the combination further discloses:

a user controlling said pre-determined sequence of videos (col. 11 lines 65-67 in Berman; and videos in Zainoulline abstract) using a graphical user interface (graphical user interface in Zainoulline's abstract).



***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW C. FLANDERS whose telephone number is (571)272-7516. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (571) 272-7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew C Flanders/  
Patent Examiner  
Art Unit 2614